U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

TYPE CERTIFICATE DATA SHEET P2BO

TCDS NUMBER: P2BO
REVISION: 3

AVIA PROPELLER LTD.
MODEL/S: V510, V510T, V510AG
February 15, 2001

This Data Sheet, which is part of Type Certificate No. P2BO, prescribes conditions and limitations under which the product meets the airworthiness requirements of the Federal Aviation Regulations.

TYPE CERTIFICATE HOLDER	AVIA PROPELLER LTD. P.O. Box 22 250 02 Stara Boleslav Czech Republic
TYPE	Constant speed; hydraulic (See Notes 3 and 4)
ENGINE SHAFT	Flanged: 4.25" bolt circle
HUB MATERIAL	Steel (forged)
BLADE MATERIAL	Aluminum Alloy (Duralumin)
NUMBER OF BLADES	5
DESIGN SERIES	V510, V510T, and V510AG

HUB	BLADE NOTE 2	MAXIMUM CONTINUOUS HP / RPM KW	<TAKE OFF> HP / RPM KW	NOMINAL DIAMETER inches/cm	APPROXIMATE WEIGHT lbs. /kg.
See NOTE 1	068-1100 (068-1000.1, 068-1000.2, 079-1000)	777.2 2080 580	777.2 2080 580	90.5 in. 230 cm.	180 lbs. – 184.4 lbs 81.7 – 83.7 kg.

CERTIFICATION BASIS: The U.S. certification basis determined under Section 21.29 of the FAR and Bilateral Airworthiness Agreement between the United States and the Czech Republic is FAR 35, effective February 1, 1965, Amendment: 35-1 to 35-6 inclusive.

TC (IMPORT) NO.

TC APPLICATION DATE: May 10, 1990

TC ISSUED: November 24, 1992 for V510, V510AG; Added March 30, 1998; V510T added August 15,2000

IMPORT REQUIREMENTS: To be considered eligible for installation on U.S. registered aircraft, each propeller to be exported to the United States shall be accompanied by a certificate of airworthiness for export or certifying statement endorsed by the exporting cognizant civil airworthiness authority which contains the following language:

(1) This propeller conforms to its United States type design (Type Certificate number P2BO and is in a condition for safe operation.

(2) This propeller has been subjected by the manufacturer to a final operational check and is in a proper state of airworthiness.

Reference FAR Section 21.500 which provides for the airworthiness acceptance of aircraft engines or propellers manufactured outside the U.S. for which a U.S. type certificate has been issued.

Additional guidance is contained in FAA Advisory Circular 21-23, Airworthiness Certification of Civil Aircraft, Engines, Propellers and Related Products, Imported into the United States.

NOTES

NOTE 1: Hub Model Designation.

068-2000	propeller V510
079-2000.7	propeller V510T
083-2000.7	propeller V510AG

NOTE 2: Blade Model Designation.
Note: 068-1100 Top level blade drawing model designation (cw rotation)

(1) V510 propeller utilizes 068-1000.1 blade with 3ph 200 VAC de-icing.
(2) V510 propeller may also utilize 068-1000.2 blade with 28 V DC de-icing.
(3) V510T and V510AG utilizes 079-1000 blade without de-icing.

NOTE 3: Pitch Controls.
(a) Propeller pitch control are approved for flight operation with propeller speed Governor.
LUN 7816 – for versions V510, V510T, V510AG

(b) Propeller pitch control are approved for flight operation with propeller overspeed limiter:
065-2600 – for versions V510, V510T, V510A

NOTE 4: (a) Feathering. The propellers incorporate feathering and unfeathering features when equipped with appropriate mounted instruments (see Note 3 and 7), positioning the blades into feather position.

Blade feathering is accomplished by:
(1) by oil pressure - all versions
(2) by outweighing moment of counterweights - all versions

(b) Reversing. All propeller models incorporate reversing feature when equipped with appropriate mounted instruments (see Note 3), to position the blades into reverse position. Maximum reverse angle is minus 24° for V510, V510T, and V510AG propellers.

NOTE 5: Right hand rotation variant.
(a) The approved propellers are right hand rotation when viewed from the pilot seat.

NOTE 6: Interchangeability of the propeller blades. Not applicable.

NOTE 7: Accessories.

(a) The propellers are approved for flight operation with the following accessories.

(1) Propeller speed governor (see Note 3)
(2) Propeller overspeed limiter (see Note 3)
(3) Electric-hyrdaulic controller: LUN 7880.1 - for versions V510, V510T, V510AG
(4) Auxiliary pump: LUN 7840 - for versions V510, V510T, V510AG
(5) Pressure switch: 0.7S LUN 1492-04 - for versions V510, V510T, V510AG
(6) Time relay LUN 2601 - for versions V510, V510T, V510AG
(7) Cycle switch LUN 3193 - for version V510 (3ph 200 VAC)
(8) BFGoodrich 3E1150-( ) - for version V510 (28 VDC)
(9) Collector LUN 7850 - for version V510 (3ph 200 VAC)
(10) BFGoodrich 3E2565-01 - for version V510 (28 VDC)

(b) Propeller de-icing

(1) The following propeller hub drawings denote propeller de-icing electrical installations:•
Propeller hub V510-P/N 068-0000 for (3ph 200 VAC)
Propeller hub V510-P/N 068-0000.1 (28 VDC)

(2) The following propeller blade drawings define the installation of the propeller de-icing element on the blade assembly:

Propeller blade P/N 068-1100 – P/N 068-1000.1, de-icing element
BFGoodrich P/N 6979 (3ph 200 VAC)

Propeller blade P/N 068-1100 – P/N 068-1000.2, de-icing element
BFGoodrich P/N 7172 (28 VDC)

(c) Propeller spinner

(1) Weight of the propeller spinner is included in the total weight of the propeller.

NOTE 8: Shank Fairings.Aerodynamic cover of the blade root. Not applicable.

NOTE 9: Special Limits.Life limited components for the AVIA V510 series propellers.

Life limited components of the AVIA V510 propeller are listed in Chapter 061 of the Airworthiness Limitations Section of the AVIA Maintenance Manual, 068-8912.7.

Life limited components of the AVIA V510AG are listed in chapter 061of the Airworthiness Limitations section of the AVIA Maintenance Manual 083-8912.7.

Life limited components of the AVIA V510T are listed in chapter 061 of the Airworthiness Limitations Section of the AVIA Maintenance Manual 079-8912.7.

Time Between Overhauls (TBOs) – TBOs have also been defined by AVIA in these maintenance manuals specifically for each model, and repair intervals must be adhered to for continued airworthiness of the propeller.

NOTE 10: Special Notes. (a) Aircraft installations must be approved as part of the aircraft type certificate and demonstrate compliance with the applicable aircraft airworthiness requirements.

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